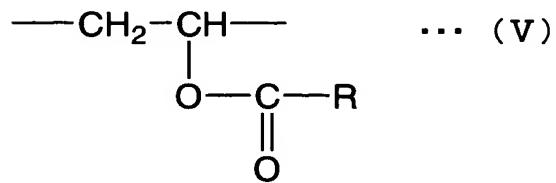
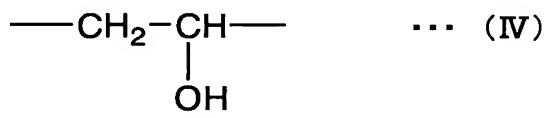
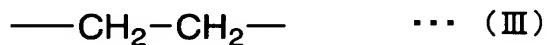
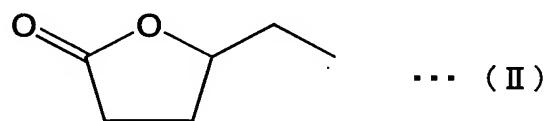
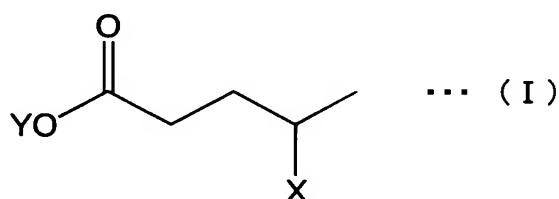


CLAIMS

1. An ethylene-vinyl alcohol based copolymer, comprising ethylene units (III), vinyl alcohol units (IV), and vinyl ester units (V), characterized in
5 that the proportion of the ethylene units (III) with respect to the total of the units (III + IV + V) is from 20 to 60 mole %, and the proportion of the total (I + II) of carboxylic acids units (I) and lactone ring units (II) in copolymer terminals with respect to the total (III + IV + V) of the units is 0.12 mole % or
10 less, the respective units (I) through (V) represented by the following formulae:



where X is a hydrogen atom, a hydroxyl group, or an esterified hydroxyl group, Y is a hydrogen atom, an alkali metal, or an alkaline earth metal, and R is a linear or branched alkyl group.

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2. The ethylene-vinyl alcohol based copolymer according to claim 1,

wherein the proportion of the vinyl ester units (V) with respect to the total (IV + V) of the vinyl alcohol units (IV) and the vinyl ester units (V) is 0.20 mole % or less.

5 3. The ethylene-vinyl alcohol based copolymer according to claim 1, wherein the expression $G < 1.53 - 0.0239 \times Eu$ is satisfied, where G is a numerical value representing the content of 1,2-glycol units, expressed as mole %, and Eu is a numerical value representing the proportion of the ethylene units (III) with respect to the total (III + IV + V) of the ethylene 10 units (III), the vinyl alcohol units (IV), and the vinyl ester units (V), expressed as mole %.

15 4. An ethylene-vinyl alcohol based copolymer resin composition comprising an ethylene-vinyl alcohol based copolymer according to claim 1, and 10 to 1000 ppm of an alkali metal salt in terms of metal.

5 5. A method for producing an ethylene-vinyl alcohol based copolymer according to claim 1, the method comprising the steps of:

20 saponifying an ethylene-vinyl ester based copolymer wherein the proportion of ethylene units (III) with respect to the total (III + V) of the ethylene units (III) and vinyl ester units (V) is from 20 to 60 mole %, to obtain an ethylene-vinyl alcohol based copolymer; and

25 reducing at least one substance selected from the ethylene-vinyl ester based copolymer and the ethylene-vinyl alcohol based copolymer by contacting the at least one substance with a reducing agent.

6. A method for producing an ethylene-vinyl alcohol based copolymer according to claim 1, the method comprising the steps of:

30 copolymerizing ethylene and a vinyl ester so that the proportion of ethylene units (III) with respect to the total (III + V) of the ethylene units (III) and vinyl ester units (V) becomes 20 to 60 mole % to obtain an ethylene-vinyl ester based copolymer; and

35 saponifying the ethylene-vinyl ester based copolymer to obtain an ethylene-vinyl alcohol based copolymer,

 wherein, in the step of copolymerizing, a polymerization temperature is set at -20°C to 90°C , and a polymerization rate is 3% to 48% with respect to the vinyl ester.

7. The method for producing an ethylene-vinyl alcohol based copolymer according to claim 6, wherein, in the step of copolymerizing, a polymerization time is set to be in the range of from 1 hour to 7 hours.